

REMARKS

Claims 49-59 and 76 have been rejected under 35 U.S.C. §101. These claims have been cancelled rendering this rejection moot. New method claims 97-105 are tied to machines such as input devices and a display. Moreover, the method of claim 97 transforms at least one stimulus stream and responses into a form that permits a user to retrieve and play back on a display “one or more time slices of the at least one stimulus streams responsive to the search criteria.” Therefore, all claims pending in the application satisfy §101.

Claims 49, 56, 58, 60, 66, 68, 70, 71, 73, 75, 77, 79, 80, 82, 84-86 and 89 stand rejected under 35 U.S.C. §102(b) as anticipated by Nickerson. Claims 49, 56, 58, 60, 66, 68, 75 and 77 have been cancelled.

An important reason for using response analysis apparatus and methods is the ability to identify occurrences in a stimulus stream that cause unusually positive or negative reactions from the respondents. The analysis apparatus is most helpful if the analyst can discover which events during a stimulus stream cause such reaction and why such a reaction was generated. Determining why may be improved if the analyst can ask the audience at the end of a session why certain reactions were generated. The ability to identify high and low points of reactions and retrieve the relevant stimulus stream immediately for re-display to the audience can be extremely valuable. An audience having viewed a stimulus stream is unlikely to welcome sitting around while the stimulus stream is replayed a second time so that the analyst can search or fast forward and rewind until a desired stream is located. Aspects of the present invention address the value of an apparatus that can expeditiously analyze, search and display relevant portions of a stimulus stream. Thus, at the conclusion of a session, the operator can go directly to stimulus stream portions that caused notable responses from the viewers.

The invention of claim 80 and all claims depending therefrom are directed to an “apparatus having a correlator that correlates digitally stored time slices of the received stimulus signal with each received response signal as a function of time to produce associative mapping.” An associative mapping allows for instantly connecting a stimulus time slice with any given response signal data. Such a correlator thus makes possible a system that permits searching for a given response reaction and immediately identifying

and locating the time slice of the stimulus signal through the associative mapping. Given that the response signals are digitally stored and the time slices of the received stimulus signal are digitally stored, such immediate access is available in a way not made possible by the more clumsy Nickerson system and apparatus.

Nickerson discloses a method or apparatus for collecting moment-to-moment audience reaction to a stimulus in real time. Nickerson does not disclose or suggest digital storage of a stimulus stream to permit searching through an associative map and retrieval of identified segments of the stream. Nickerson is designed for questionnaires and surveys associating viewer responses with the questions to which the responses correspond. An associative mapping of responses to time slices of the stimulus stream is not disclosed, suggested nor taught. Indeed, Nickerson has no incentive because retrieval and playback of time slices of the stimulus stream at the end of a recording session is not contemplated. The system of Nickerson would require an analyst to fast forward and rewind, a laborious inexact process to locate any given portion of the video tape. The lack of a correlator for correlating digitally stored time slices of the received stimulus signal fully distinguishes claim 80, and all claims depending therefrom, from Nickerson.

Claim 70 has been amended so that it now requires that the correlator include a "processor for digitally processing each stimulus stream as a digital signal with a series of time slices." Furthermore, claim 70 requires that the storage module store the associative mapping and said mapping includes "the responses and the time slices of the digital signal of the stimulus stream." Claim 70 has been further amended to include a "user interface" reworded from claim 78. Claim 78 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nickerson in view of Ludwig. The user interface has been amended to specify that searches can be conducted "on the basis of analyses of the responses." Thus, time slices of the stimulus stream may be retrieved for display on the user interface based upon response criteria.

Applicants submit that neither Ludwig nor Nickerson provide incentive for digitally processing a stimulus stream. The storage devices of Ludwig typically include computer-controlled VCRs as indicated at column 30, lines 57-58. Thus, as Ludwig supports intra-file searching, this involves such things as start, stop, pause, fast forward, reverse and fast reverse as would be contemplated in Nickerson for laboriously moving

through a stimulus stream. While Ludwig also discloses use of rewritable magnetic or optical disks, the preference given for VCR indicates a complete lack of incentive for modifying Nickerson into a digital system.

Moreover, neither Ludwig nor Nickerson discloses an associative mapping that permits searches on the basis of analyses of the responses so as to retrieve stimulus streams for display on the user interface. Nickerson does not contemplate going from response data to stimulus streams. The Nickerson system is focused on applying response data to a stimulus stream so that the reaction of an audience to a stimulus may be viewed. However, Nickerson does not disclose analyzing response data in order to search out specified portions of a stimulus stream. Ludwig does not disclose or involve response data at all. To the extent Ludwig discloses intra-file searching, it merely mentions start, stop, pause, fast forward, reverse and fast reverse. As for inter-file searching, Ludwig mentions tagging and go-to operations which rely upon frame numbers and time code. There is no discussion of reviewing or analyzing responses or the like for locating associated stimulus stream portions through an associative mapping. Thus, Applicants' system which solves the problem of determining why certain audience responses were generated by being able to conveniently and expeditiously replay notable stimulus streams after a session is not in any way disclosed by Nickerson or Ludwig, alone or in combination. For all the above reasons, Applicants submit that claim 70 and all claims depending therefrom are allowable over the art of record.

More specifically with regard to claim 73, Applicants' system includes multichannel associative mapping. For example, the responses in Applicants' invention may be in reaction to a video stream and an audio stream or in reaction to two video streams. Associative mapping each of the video and the audio is not disclosed, suggested or taught by Nickerson or Ludwig. The stimulus stream of Nickerson is a single videotape or live performance and there is no disclosure or suggestion of mapping of each of the video and audio inputs. For these additional reasons, claim 73 should be allowed.

Claims 50-55, 57, 59, 61, 62, 65, 67, 69 and 83 stand rejected under 35 U.S.C. 102(e) as being anticipated by Leroy. Claims 50-69 have been canceled. Claim 83 has

been amended to depend from claim 84, which was fully distinguished from Leroy.

Therefore, Applicants submit that claim 83 is patentable over Leroy.

Claims 63, 64 and 72 were rejected under 35 U.S.C. 103 (c) as being unpatentable over Leroy in view of Lyberg. Claims 63 and 64 have been canceled. Claim 72 depends from claim 70 which has been amended. Claim 70 now requires "a processor for digitally processing each stimulus stream as a digital signal with a series of time slices." Claim 70 further requires a user interface that allows "an operator to search the associative mapping on the basis of analyses of the responses." Given these additional limitations, claim 72 is patentable over Leroy and Lyberg.

Claims 74 and 81 were rejected under 35 U.S.C. 103(a) as being unpatentable over Leroy. Claim 74 depends from claim 70 which has been amended. Claim 70 now requires "a processor for digitally processing each stimulus stream as a digital signal with a series of time slices." Claim 70 further requires a user interface that allows "an operator to search the associative mapping on the basis of analyses of the responses." Claim 81 has been amended to now depend from claim 84, which was fully distinguished from Leroy. Therefore, Applicants submit that claims 74 and 81 are patentable over Leroy.

Claims 76 and 78 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nickerson in view of Ludwig. These claims have been cancelled and this rejection has been addressed above with respect to amended claim 70.

New claims 90-96 are dependent claims that more fully cover detailed aspects of embodiments of Applicants' invention. Full consideration and allowance of these claims is requested.

New claims 97-105 advance the prosecution of Applicants' method claims. The stimulus stream stored in digital format may be accessed through use of the associative mapping so as to play back time slices of interest. The digitally stored and correlated stimulus stream is readily available to the user for searching and selective viewing. This analytical tool of the present invention is nowhere suggested by the prior art.

Nickerson discloses a method or apparatus for collecting moment-to-moment audience reactions. Nickerson does not disclose or suggest digital storage of a stimulus stream to permit searching through an associative map and retrieval of identified

segments of the stream. An associative mapping of responses to time slices of the stimulus stream is not disclosed, suggested or taught. Retrieval and playback of time slices of the stimulus stream in conjunction with the search of the associative mapping is not disclosed, suggested or taught. For these reasons, new claims 97-105 are believed patentable over Nickerson.

Leroy is directed to a system that enables real time monitoring of the effectiveness of a fund raising campaign. Thus, Leroy teaches and focuses on obtaining quick access to the response data. Leroy offers no suggestion or disclosure of a solution to the problem addressed by Applicants of how to readily retrieve stimulus stream portions of interest for display and review. Claim 97 requires "storing a series of time slices of the at least one stimulus stream in a digital format" and "storing an associative mapping for the at least one stimulus stream that correlates each of the time slices of the at least one stimulus stream with the responses." As a result, the invention allows for easy access to time slices of the stimulus stream through searches based on the response data. Leroy does not teach or suggest steps for achieving these advantages. Leroy does not teach, disclose or suggest making a digital stimulus stream available through an associative mapping. Thus, Leroy does not disclose or discuss "prompting a user on a display for search criteria" to search through an associative mapping and playback a portion of the stimulus stream. For these reasons, claim 97 and all claims depending therefrom are patentable over Leroy.

In addition, claim 97 predates Leroy. The Declaration Under 37 C.F.R. §1.131 previously filed January 12, 2009 establishes that Applicants reduced the invention of claim 97 to practice before July 12, 1995. The first four acts of "showing," "storing a series of time slices," "associating," and "storing an associative mapping" in the claim are addressed in the Declaration explicitly. "Prompting a user" is shown in Exhibit C of the Declaration, which illustrates a display on the second page and describes running a query. The display offers a query screen with a list of search criteria from which to choose. As further illustrated and described, Applicants' earlier invented apparatus displays one or more time slices responsive to the search criteria. As stated in Exhibit C, "a video clip representing the highest response for that variable is automatically played in the Video window." Thus, not only is Applicants' invention patentable over Leroy, but

Applicants predated Leroy rendering it non-prior art that cannot form the basis of a rejection.

For all the foregoing reasons, Applicants submit that all of the claims presently pending in the application distinguish over the cited art and early notice to that effect is respectfully solicited.

Respectfully submitted,

Dated: July 15, 2009

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